

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A spark plug comprising:
 - a metal housing;
 - a porcelain insulator installed in said metal housing;
 - a center electrode retained within said porcelain insulator, said center electrode having a length and a tip portion projecting from a tip of said porcelain insulator;
 - a shoulder formed on a side wall of said center electrode to define a large-diameter portion and a small-diameter portion of said center electrode, said shoulder tapering off to the tip portion of said center electrode and having a boundary leading to the large-diameter portion located inside said porcelain insulator;
 - a first ground electrode being installed on said metal housing which has an end portion opposed to the tip portion of said center electrode to define a first spark gap between;
 - a noble metal chip being disposed on the tip portion of the center electrode which faces the first ground electrode;
 - a second ground electrode installed on said metal housing which has an end arranged outside the tip of said porcelain insulator and opposed over the tip of said porcelain insulator to a portion of the side wall of said center electrode to define a second spark gap in which sparks are to be generated to burn away carbon adhered to a surface of the tip of said porcelain insulator, resulting in a decrease in insulation resistance offered by said porcelain insulator; and
 - a wear resisting member provided on said portion of the side wall of said center electrode for offering resistance to wear caused by the sparks generated in the second spark gap, said wear resisting member being different from said noble metal chip disposed on the tip portion of the center electrode,

wherein an interval between an inner wall of said porcelain insulator and the side wall of said center electrode is defined as d , and a circle is defined which has a center on an inside corner of the tip of said porcelain insulator facing said center electrode and a radius R defined on a plane including a longitudinal center line of the spark plug, the radius R is the interval d plus 0.1 mm, and said wear resisting member is located at least inside the circle.

Claim 2. (Canceled)

3. (Currently amended) A spark plug as in claim 1, wherein said wear resisting member has a width which is opposed to said-center second ground electrode and greater than or equal to 0.5mm.

4. (Previously presented) A spark plug as in claim 3, wherein said wear resisting member is provided over an entire circumference of a portion of the side wall of said center electrode.

5. (Previously presented) A spark plug as in claim 1, wherein said wear resisting member has a surface substantially lying flush with a surface of the side wall of said center electrode.

6. (Previously presented) A spark plug as in claim 1, wherein said wear resisting member is made of a metallic material which is higher in melting point than an Ni alloy.

7. (Previously presented) A spark plug as in claim 6, wherein said metallic material is one of the group consisting of a Pt alloy and an Ir alloy.

Claims 8-13 – cancelled without prejudice or disclaimer.

14. (Currently amended) A spark plug comprising:

a first spark gap defined between an end of a center electrode and a first ground electrode disposed in opposition to said end along a longitudinal axis of said center electrode;

a second spark gap defined radially along a side wall portion of said center electrode and a second ground electrode disposed in opposition to said side wall portion radially outwardly of said center electrode;

an insulator circumferentially encompassing a portion of the center electrode and having an end portion of said insulator extending partially into said second spark gap; and

a wear resisting material disposed on said side wall portion of said center electrode at said second spark gap,

wherein an interval between an inner wall of said insulator and the side wall portion of said center electrode is defined as d , and a circle is defined which has a center on an inside corner of the tip of said insulator facing said center electrode and a radius R defined on a plane including a longitudinal center line of the spark plug, the radius R is the interval d plus 0.1 mm, and said wear resisting material is located at least inside the circle.

Claim 15. (Canceled).

16. (Currently amended) A spark plug as in claim 14 wherein said wear resisting material has a width which is opposed to said-center second ground electrode and greater than or equal to 0.5mm.

17. (Previously presented) A spark plug as in claim 16 wherein said wear resisting member is provided over an entire circumference of a portion of the side wall of said center electrode.

18. (Previously presented) A spark plug as in claim 14 wherein said wear resisting material has a surface substantially lying flush with a surface of the side wall of said center electrode.

19. (Previously presented) A spark plug as in claim 14 wherein said wear resisting material is made of a metallic material which is higher in melting point than an Ni alloy.

20. (Previously presented) A spark plug as in claim 19 wherein said metallic material is one of the group consisting of a Pt alloy and an Ir alloy.